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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,543	02/28/2002	Alan B. Shuey	020014	9808

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George Raynovich, Jr.  
Paul A. Beck & Associates  
Suite 100  
1575 McFarland Road  
Pittsburgh, PA 15216-1808

EXAMINER

CHAN, KO HUNG

ART UNIT

PAPER NUMBER

3632

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/085,543

Applicant(s)

SHUEY, ALAN B.

Examiner

Korie H. Chan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 3-5,8-10 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) 2, 6, 7, 11-13, and 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-5,8-10 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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In view of the Appeal filed on August 22, 2003, PROSECUTION IS HEREBY REOPENED.

***Finality Withdrawn***

Additionally, after further reconsideration, the finality of the rejection of the last Office action (paper no. 4) is withdrawn.

A new non-final rejection follows.

**DETAILED ACTION**

This is the third Office Action. The status of the claims are as follows: Claims 3-5,8-10,14-16 are the elected claims. Claims 2, 6, 7, 11-13, and 17-22 have been withdrawn as being directed to non-elected species.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 112***

Claims 3-5, 8-10, and 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3, line 6, "the vertical position" is vague and indefinite as it is not defined. Examiner suggest "a vertical portion", Further, regarding claims 3-15, the language of independent claims 3 and 8 are unclear as to whether the cable is claimed as a combination with the clamp. In one

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instance such as on line 7, claim 3, applicant recites an intended use "for receiving a cable"; however, on lines 11-12, claim 3, applicant recites "wedges retained by said wedge retainer to contact said cable within the bore and to be forced against the cable by said conical end portion" which appears to claim the combination of the clamp with its wedges in a positive engagement with the cable. In claim 8, applicant inferentially claims "a cable" which also makes it unclear as to whether the cable is claimed in combination therewith. As a result the meets and bounds of the claims are vague and indefinite.

***Claim Rejections - 35 USC § 103***

Claims 3-5, 8-10 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redman et al (US patent no. 4,550,890) in view of Nelson (US patent no. 3,069,738) or Sword (US patent no. 4,653,792) and further in view of Arakawa (US patent no. 4,656,698). Redman discloses a clamp for a support system to suspend an object from an overhead beam comprising a generally C-clamp (11) with a threaded fastener (12) threadingly received within one of the leg (11) of the clamp, and a vertical bore (10A) receiving a suspended strap, means to restrict downward vertical movement (17) of the suspended strap relative to clamp body and to permit vertical adjustment of the pipe or article supported thereon. However, Redman does not disclose the use of a cable or the means to restrict downward movement as being a conical bore with wedge device cooperating therewith and a lock nut.

To support pipes via straps or cables are notoriously old and well-known in the art. Straps and cables are well-known obvious mechanical equivalents for suspending

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objects. Both Sword and Nelson teaches the use of cable (22-Nelson, Sword-32) with an end having a permanent loop through which the cable is threaded therethrough (Col. 2, lines 36-44 in Nelson and figure in Sword) for suspending an object.

Arakawa teaches a cable retention wedge system comprising a vertical bore (11) with a conical lower end portion (9), a wedge retainer (8) vertically movable within the bore, wedges (5) retained by the wedge retainer to contact a cable (W) within the bore and to be forced against the cable by the conical end portion of the bore when the retainer is at the lower part of the bore, and a spring (10) to urge the wedge retainer downwardly relative to the bore; wherein the cable is adjusted by forcing the cable upwardly from the bottom of the bore to release the wedges and permit movement of the cable, the wedge retainer has a threaded portion (19a) protruding below the bore with a lock nut (19) threaded onto the wedge retainer lower portion so that after the cable is positioned within retainer at the desired height, the lock nut is tightened to lock the wedge retainer and prevent movement of the wedge retainer relative to the bore.

It would have been obvious to one of ordinary skill in the art to modify the strap and strap retention assembly of Redman such that the strap is substituted with a cable for the reason that straps and cable suspension support are well-known mechanical equivalents as demonstrated by both Nelson and Sword, and consequently substituting the strap retention wedge system of Redman for a cable retention wedge system as taught by Arakawa. Such modification would have involved a mere substitution of one well-known flexible suspension device for another and consequently modifying the strap retaining device to a cable retaining device.

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Claims 3-5, 8-10 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirt (US patent no. 3,321,161) in view of Nelson (US patent no. 3,069,738) or Sword (US patent no. 4,653,792) and further in view of Arakawa (US patent no. 4,656,698). Hirt'161 discloses a clamp for a support system to suspend an object from an overhead beam comprising a C-clamp (24, fig. 2) with a threaded fastener (22) threadingly received within one of the leg (20) of the clamp, and a vertical bore (21) through the vertical portion of the "C" clamp for receiving a suspended rod (26), means to restrict downward vertical movement (threads in bore) of the suspended rod relative to clamp body. However, Hirt does not disclose a cable type support with a means to restrict as being a conical bore with wedge device cooperating with the cable and a lock nut.

To support objects via cables are notoriously old and well-known in the art. Both Sword and Nelson teaches the use of cable (22-Nelson, Sword-32) with an end having a permanent loop through which the cable is threaded therethrough (Col. 2, lines 36-44 in Nelson and figure in Sword) for suspending an object.

Arakawa teaches a cable retention wedge system comprising a vertical bore (11) with a conical lower end portion (9), a wedge retainer (8) vertically movable within the bore, wedges (5) retained by the wedge retainer to contact a cable (W) within the bore and to be forced against the cable by the conical end portion of the bore when the retainer is at the lower part of the bore, and a spring (10) to urge the wedge retainer downwardly relative to the bore; wherein the cable is adjusted by forcing the cable upwardly from the bottom of the bore to release the wedges and permit movement of

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the cable, the wedge retainer has a threaded portion (19a) protruding below the bore with a lock nut (19) threaded onto the wedge retainer lower portion so that after the cable is positioned within retainer at the desired height, the lock nut is tightened to lock the wedge retainer and prevent movement of the wedge retainer relative to the bore.

It would have been obvious to one of ordinary skill in the art to modify the strap and rod retention assembly of Hirt such that the rod is substituted with a cable since cable suspension support are old and well-known as demonstrated by both Sword and Nelson; and consequently substituting the rod retention wedge system of Hirt for a cable retention wedge system as taught by Arakawa. Such modification would have involved a mere substitution of one well-known suspension device for another and consequently modifying the rod retaining device to a cable retaining device.

### ***Response to Arguments***

Applicant's arguments with respect to claims 3-5, 8-10, and 14-16 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Korie H. Chan whose telephone number is 703-305-8079. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leslie Braun can be reached on 703-308-2156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Korie H. Chan  
Primary Examiner  
Art Unit 3632

Khc  
February 26, 2004